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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,247	05/09/2001	Michael T. Rossi	A7966	3007

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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

PAK, SUNG H

ART UNIT PAPER NUMBER

2874

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,247

Applicant(s)

ROSSI ET AL.

Examiner

Sung H. Pak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24, 26-37 and 39-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-35, 37, 39-41, 43 and 44 is/are allowed.
- 6) ☒ Claim(s) 15-24, 26-28 and 42 is/are rejected.
- 7) ☒ Claim(s) 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Applicant's amendment filed 3/17/2004 has been entered. Claims 1-24, 26-37, 39-44 are pending. Claims 1-14 are allowed as indicated in the previous office action. Claims 29-35, 37, 39-41, 43-44 are allowed in this office action in view of the amendment. Claims 15-24, 26-28, 42 have been carefully reconsidered in view of the arguments set forth in the amendment, however they remain unpatentable. Please refer to Response to Arguments for details.

Claim Objections

Claim 36 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form.

Independent claim 29 was amended to incorporate the limitations of claim 36. Claim 36 is therefore redundant and does not further limit the independent claim 29.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 15-16, 18, 20-21, 23-24, 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Risch et al (US 6,085,009) as stated in the prior office action.

Risch et al (US 6,085,009) had been cited in prior office actions.

Regarding claim 15, Risch et al reference discloses an optical fiber with all the limitations set forth in the claims, including: an outer layer ("20" in Fig. 1); at least one optical fiber disposed inside the outer layer ("14" in Fig. 1); at least one gel-swellaable portion (a buffer tube) proximate to an inner surface of the outer layer ("12" in Fig. 1); a water resistant gel positioned adjacent to the gel-swellaable portion and disposed between the outer layer and the optical fiber (column 3 lines 4-7); the gel-swellaable buffer tube being composed of impact modified polypropylene (i-PP) (column 5 lines 29-51).

Regarding claims 16, 20, Risch et al discloses that at least one gel-swellaable portion is a buffer tube that runs along the longitudinal length of the fiber cable (column 2 line 64-column 3 line 3, and column 5 lines 29-51).

Regarding claim 21, Risch et al discloses plurality of gel-swellaable buffer tubes (Fig. 1).

Regarding claim 24, Risch et al discloses that the buffer tubes are copolymers of polyethylene (column 3 line 10).

Regarding claims 15, Risch et al discloses that i-PP buffer tubes swell more than 10% at 85°C in various water blocking gels (Fig. 2).

Regarding claims 26, 27, Risch et al discloses that the water blocking gel is polyolefin oil based gel (Fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17, 19, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Risch et al (US 6,085,009) as stated in the prior office action.

Risch et al reference discloses an optical fiber with all the limitations set forth in the claims as discussed above, except it does not explicitly state that the buffer tubes may have grooves or be corrugated. However, it would have been an obvious matter of design to have grooves on the buffer tubes, since applicant has not disclosed that grooves on the buffer tube solves any stated problem or is for any particular purpose (see page 10 of the instant application) and it appears that the invention would perform equally well without the grooved buffer tubes.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Risch et al device to have grooved buffer tubes.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Risch et al (US 6,085,009).

Risch et al reference discloses an optical fiber cable with all the limitations set forth in the claims as discussed above, except it does not disclose the use of optical fiber ribbons. However, optical fiber ribbons are well known and commonly used in the art. Fiber ribbons provide a well-known advantage over the individual fibers, because they allow for plurality of optical fibers to be organized in a smaller given space. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Saller et al devices to use fiber ribbons instead of individual fibers. It would have been desirable to have dense fiber optic cables.

Allowable Subject Matter

Claims 1-14, 29-35, 37, 39-41, 43-44 are allowed.

Claims are amended to include allowable limitations discussed in the previous office action.

Response to Arguments

As a preliminary matter, the applicant noted an inadvertent typo in the office action. That is, the rejection of claim 15 inadvertently stated "Regarding claim 1..." This typo is corrected in the present office action ("Regarding claim 1" was changed to "Regarding claim 15"). The substantive content of the rejection has not been changed in any way. The examiner apologizes for any confusion and inconvenience this may have caused.

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On page 11 of the applicant's response, it is argued that "Risch fails to disclose having a gel-swellable layer come in contact with an outer layer of the optical fiber." Further, it is argued that "it is desirable to avoid contact between buffer tubes and optical fibers" and that "as such, the Examiner can not rely on the buffer tubes of Risch '009 as disclosing 'a gel-swellable portion contacting an outer surface of [the] fiber.'"

Assuming arguendo it is generally 'undesirable' to avoid contact between buffer tubes and optical fibers, such contact nevertheless occurs in the Risch device. As discussed in the prior office action, the space between the optical fibers and the gel-swellable portion is occupied by the water blocking gel, which is not solid. Figure 1 shows no structural support that prevents the movement of optical fibers 14 within the tube, and "a gel-swellable portion contacting an outer surface of [the] optical fiber" recited in claim 15 is inherently anticipated by Risch '009. This is especially true, when the fiber optic cable of Risch is subjected to bending. Therefore, the limitations of claim 15 is anticipated by Risch '009, and the claim rejection based on 35 USC 102(e) is proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period


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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (571) 272-2353. The examiner can normally be reached on Monday - Thursday : 6:30am- 5:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sung H. Pak
Examiner
Art Unit 2874

sp



Rodney Bovermick
Supervisory Patent Examiner
Technology Center 2800